CITY OF SUNNYVALE
REPORT
Planning Commission

December 13, 2004

SUBJECT: Study Issue to consider an In-lieu Fee for the Undergrounding of Utilities.

REPORT IN BRIEF

This Study explores revisions to the Sunnyvale Municipal Code related to requirements for the undergrounding of public utilities and options for an expanded effort on such undergrounding. Presented in this report are a series of options related to undergrounding, including reducing the requirements to underground utilities.

The interest in placing utilities underground in Sunnyvale has been ongoing for many years. The coordination with utility companies, the high cost and the impact on numerous property owners makes the issue very complex. There are existing code requirements in place to require the undergrounding of utilities for new subdivisions, new development and major alterations to property. The success of these requirements has been mixed. It has been effective for large subdivisions or development projects because undergrounding of existing overhead lines can be completed along with the other utility work on site. The requirements have been less effective in existing older neighborhoods where developments have been singular and the requirement to place the utilities underground have often been found to be infeasible.

There are several challenges to placing the utilities underground in the city. Following are a few examples of the difficulty in approaching the task (each example is discussed in greater detail in this report):

1. **Most overhead utilities are in existing residential neighborhoods**: These areas are the least likely to experience large-scale redevelopment, which is the time overhead utilities are usually placed underground. It is extremely difficult and expensive to return to existing neighborhoods in order to underground the utilities.
2. **Two main types of overhead utilities**: There are two main types of overhead utilities: those located in the front of properties and those in the rear. For overhead lines in the rear to be undergrounded in an existing residential neighborhood, several properties would need to relocate the utilities to the front right-of-way so there is not a hop-

scotching pattern of utilities from front to back. As a result, this would not allow a piecemeal approach to the effort. Front utilities are more straight-forward to address, but still have challenges.

3. **High cost to underground:** The enormous cost of placing utilities underground severely constrains individual property owners and the City from completing the work without considerable financial commitment.
4. **Various options to raise capital to underground utilities:** The California Public Utilities Commission has a program called Rule 20 which raises money through utility revenue and is available to cities for undergrounding projects. The use of this money is limited to major arterials. Other methods of raising the money are the City's and/or individual property owners' responsibilities. The amount of money necessary to underground the utilities per property is significant and requires a major commitment from all parties.
5. **Time frame to completion:** Each method considered in this report includes a timeframe to complete the improvements. In general, most methods would require hundreds of years for completion, except the creation of assessment districts, which is the most expensive option.
6. **Current requirements:** Current programs which require undergrounding for new subdivisions or major developments will result in success for those specific properties, and should be continued. These efforts are unlikely, however, to affect the older residential areas of the City where the utilities run overhead. These areas will not experience large-scale improvements which would initiate undergrounding efforts.
7. **Status Quo for existing residential neighborhoods:** Given the current fiscal situation in the City and the high cost of the improvements, the community may decide to push for Rule 20-funded improvements, but accept the existing overhead utilities in the established neighborhoods.

The options analyzed in this report range from relatively simple amendments to the Municipal Code intended to clarify and improve existing undergrounding requirements, to consideration of the creation of multiple assessment districts intended to fund the complete undergrounding of utilities neighborhood by neighborhood. Depending on Council direction, certain options could be recast as new Study Issues for future Council action. Specifically, options analyzed within this report include:

1. **Rule 20 funds:** The City currently has credit for almost $7,000,000 in Rule 20 funds with an additional $4,000,000 in the next 5 years. These funds should be used on the major arterials as soon as possible which would positively impact the City;
2. **Establish priorities:** Decide if the goal is to underground all utilities throughout the City, or just focus on those located in the front of properties, which have the greatest visual impact on the community as a

whole. Also, determine the community interest in placing utilities underground, especially given the significant cost;

3. **Adopt a series of possible revisions to Title 19 of the Municipal Code**: Options include allowing participation agreements (which allow for the deferral of the undergrounding of utilities until such time as a larger undergrounding effort is implemented) and the collection of a fee in-lieu of the installation of utilities underground;
4. **Develop a more aggressive approach**: Establish a developer fee or tax or utility assessment districts to provide a significant income stream for a more coordinated and accelerated effort in placing all or a portion of the City's utilities underground.

BACKGROUND

As originally conceived, this study issue was intended to consider the development of an in-lieu fee for the undergrounding of public utilities as well as delineating districts throughout the City where such fees could be used. In addition, the study would also consider the elimination of conduit installations as an alternative to undergrounding. In light of the complexity associated with the undergrounding of utilities, the Study Issue has evolved to include consideration of a series of alternatives.

UNDERGROUNDING HISTORY

Undergrounding of utilities within the City of Sunnyvale began in May 1967 when the Zoning Code was amended so that the undergrounding of overhead utility lines would, thereafter, be required in connection with any new residential subdivision. The reasons for undergrounding utilities were based on safety, as well as aesthetic reasons. In January 1970 Council approved a further modification in the Municipal Code calling for the undergrounding of overhead utility lines in all new developments, commercial, industrial and residential. In September 1985, due to the substantial costs encountered by developers for the undergrounding of utilities, the City assumed a participatory role in undergrounding costs as follows:

1. Developer to pay the cost of undergrounding along the development frontage, plus one-half the costs of street crossings.
2. City to pay the cost of undergrounding outside the frontage of the development, plus one-half the costs of street crossings based on proportional lineal feet.
3. Developer to pay 100% of the costs for street crossing service drops to the development.

Since its implementation, undergrounding in the City of Sunnyvale has had mixed success. Larger residential, commercial or industrial projects with long, clearly defined boundaries fronting streets have been generally successful in

meeting undergrounding requirements. The undergrounding of long sections of overhead utilities have a positive visual affect from which the entire community benefits. Large projects also have the advantage of greater financial resources and the percentage of overall project costs for undergrounding is more manageable.

For smaller projects, particularly single-family home redevelopment or replacement, undergrounding costs can have a significant financial impact on the project. Such projects are commonly characterized by a small property sharing multiple boundaries with its neighbors. Undergrounding projects in such locations generally represent marginal aesthetic improvements and often result in disruption on adjoining property. Finally, small lot undergrounding projects are often difficult to design because poles, support wires and associated equipment may or may not be present on the subject property. Each case is unique and the developer is only responsible for facilities on their property. In some cases only the wires (conductors) that cross the subject property need to be undergrounded. In such cases, off-site properties are affected but cannot be required to share costs. In such cases, or where the facilities cross public rights-of-way, the City may participate in project costs. It is sometimes determined that the cost to the City is too great and the project is not completed.

PLANNING COMMISSION STUDY SESSION

On November 8, 2004, the Planning Commission considered the undergrounding study at a study session. Generally, the Commission was in favor of an aggressive approach to placing the utilities underground, while understanding the significant costs associated with the improvement. Highlights of the Commission comments and questions are as follows:

1. *Do not create a program that would result in a piecemeal approach- have the improvements done in a coordinated manner.* Undergrounding utilities on a one-by-one basis would be an example of a piecemeal approach. There are several options to raise the capital necessary for undergrounding with the timing of the improvements tied to the costs found acceptable.
2. *What is the expected cost of undergrounding existing overhead utilities?* Research has shown the cost to vary widely from $100 to $400 per linear foot. See Attachment C for examples of the cost for a typical neighborhood.
3. *Where are rear yard overhead utility lines placed underground- in the front or rear?* Staff contacted different cities which have experience with this issue, and the undergrounding usually occurs in the front of the properties.

4. *Coordinate undergrounding with other civil improvements in the right-of-way, such as repaving, replacing gas or sewer lines or the installation of fiber optic lines.* The City should coordinate efforts in the right-of-way to reduce costs and inconvenience to the public. The status of adding fiber optic lines in the City is unknown.
5. *Does undergrounding of utilities effect property values? Does a property owner within a future underground area need to disclose that information upon sale?* It is generally assumed that properties that have the utilities placed underground are more aesthetically pleasing than those with overhead lines- so the result is that the properties might be considered more valuable. If a property is located in a utility district or if a document requiring future undergrounding has been recorded, that information would be disclosed to interested buyers.

MAPPING OF OVERHEAD UTILITIES

The mapping necessary to determine and delineate how any available funds would best serve the community could not be obtained from the utility providers when they determined that such information was considered to be proprietary and not available for City use. As a result, it was necessary for City staff to conduct citywide reconnaissance to map the current status of overhead utilities.

The analysis began with staff members from the Community Development Department mapping the location of overhead utilities in the City at the parcel level (See Attachment A). Field reconnaissance via "windshield surveys" was conducted. It was hoped that this information could be obtained from the. The maps generated by staff differentiate between power, telephone and cable service. In addition, the maps show whether overhead utility services are located in the front or rear of each parcel. This work has established the base data from which undergrounding options may develop. These maps are considered generally accurate, but should not be relied on as the final word on the status of these utilities.

To summarize, above-ground utilities are located along rear property lines in approximately 30% of the City, and along street frontages in 15%. The majority of the areas with undergrounding complete are the newer developed areas where there are large properties, and these constitute approximately 55% of the City. The pattern also varies by location. In Downtown Sunnyvale, pockets developed in the County, and the area north of Central between Mathilda and Fair Oaks there are overhead lines along street frontages. In these areas, service drops cross streets and front yards. Large portions of south and west Sunnyvale have overhead lines along the rear properties. Service drops

traverse the back yards in these situations. Most industrial and commercial areas have been undergrounded.

RULE 20 ELECTRIC UNDERGROUNDING PROGRAMS

Funded by an electric tariff filed with the California Public Utilities Commission (Rule 20), Pacific Gas and Electric Company (PG&E) undergrounds approximately 30 miles of electric facilities each year within the entire PG&E service area. Projects performed under Rule 20 are nominated by a city, county or municipal agency for ranking by PG&E and the other utilities. It should be noted that residential neighborhoods do not qualify for Rule 20 funds (unless they are located on a major arterial). Rule 20 funds only apply to major arterials.

Rule 20A
Rule 20A projects are typically in areas of a community that are used most by the general public. To qualify, the governing bodies of a city or county must, among other things, determine that undergrounding is in the general public interest for one or more of the following reasons:

- Undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities.
- The street, road or right-of-way is extensively used by the general pubic and carries a heavy volume of pedestrian or vehicle traffic.
- The street, road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.
- The street, road or right-of-way is considered an arterial street or major collector as defined under State law.

Rule 20B
Rule 20B projects are usually done with larger developments. The majority of the costs are paid for by the developer or applicant. Undergrounding under Rule 20B is available for circumstances where the area to be undergrounded does not fit Rule 20A criteria. Under Rule 20B, the applicant is responsible for the installation of the conduit, substructures and boxes. The applicant then pays for the costs to complete the installation of the underground system, less a credit for an equivalent overhead system.

Rule 20C
Rule 20C projects are usually for smaller projects involving a few property owners. Full installations costs are borne by the applicants, less a credit for salvage.

Existing City Policy for Rule 20 Funds
According to recent communication with PG&E, the City has a credit of $6,855,657 for use in Rule 20 projects (as of 1/1/04). Based on past allotments from Rule 20 funds, the City can anticipate approximately $800,000 per year (for 5 years) for the purpose of planning future Rule 20 projects. This amount of $4,000,000 combined with the existing credit totals approximately $11,000,000 for use on qualified Rule 20 improvements.

Rule 20 Program funds are prioritized and monitored by the City's Public Works Department. In 1985 the City established priorities based on the following chronological order of projects proposed for Rule 20 use (some portions of these arterials may have been undergrounded, but not the entire street):

Priority #	Street	From	To
1	Fair Oaks	El Camino Real	Wolfe
2	Wolfe	Homestead	Old San Francisco
3	Mary	El Camino Real	Bidwell
4	Pastoria	El Camino Real	Evelyn
5	Washington	Charles	Carson
6	Washington	Bayview	Carroll
7	Evelyn	Marshall	Mathilda
8	Maude	Wolfe	Mathilda
9	N. Sunnyvale	SPRR	Maude
10	Homestead	Lawrence	West City Limits

EXISTING POLICY

The following policies and action statements relate to undergrounding issues:

Community Design Sub-Element:

Policy 2.5B.3 Minimize elements which clutter the roadway and look unattractive.

Action Statement 2.5B3a Maintain the requirements for undergrounding overhead utility wires.

Policy 2.5C.3 Ensure that site design creates places which are well organized, attractive and safe.

Policy 2.5D.3 Work with outside government agencies to achieve attractive public and quasi-public facilities consistent with the quality of development in Sunnyvale.

Action Statement 2.5D3d Encourage PG&E and Southern Pacific Railroad to improve the appearance of transmission line easements and railroad lines.

CURRENT CODE REQUIREMENTS

Currently the Municipal Code requires that "All utilities and communication services associated with new development, redevelopment, subdivision or change in use shall be placed underground."

A summary of the current Code includes:

- Utilities to be underground include sewer, water, gas and all electric and communication facilities such as telephone, cable television, fiber optics etc.
- Such undergrounding includes both building service (laterals and service drops) and distribution (boundary) facilities of 34.5 KV or less. Section 19.38.090 also includes a listing of general requirements and exempt facilities.
- Section 19.38.100 requires that the developer bear all costs associated with placing utilities underground subject to certain exceptions. Exceptions would include where lines cross a public right-of-way or other private property not controlled by the developer. For example, undergrounding is not required where there are no poles on the subject property. Service drops, however, are required to be relocated underground.
- Allocated costs for undergrounding of utilities will vary depending upon the situation. The developer may be required to share costs with the City or pay a pro rata share. In most situations the applicant is required to place their service drop underground, but rarely are boundary utilities required to be placed underground. The undergrounding requirement is waived when unique situations exist which would make undergrounding either infeasible or unreasonable. The current undergrounding ordinance does not incorporate an in-lieu fee provision.
- SMC allows for the waiver of undergrounding requirements where "topographical, soil or any other condition makes underground installation of such facilities unreasonable or impracticable, or if such undergrounding would result in the deleterious erection of alternate above-ground facilities for servicing other properties."

DISCUSSION

The original intent of this study issue was to review the feasibility and effectiveness of an in-lieu fee for sites that either did not trigger undergrounding requirements or were not feasible for undergrounding due to small piecemeal development.

In researching this issue, the complications of undergrounding utilities in Sunnyvale became obvious. The most significant issue is that the majority of overhead utility lines run through established residential areas. In-lieu fees and those types of programs work best in areas where development or redevelopment occurs. It is unlikely that wholesale redevelopment will occur in the residential areas of the City. Because of the extremely high cost of undergrounding, which varies from $1,000,000-$3,000,000 per mile (equating to $15,000 to $60,000 per property owner), significant money would need to gained through in-lieu fees to meet the goal of underground the utilities in the City. The in-lieu fees would need to be very high to meet the goals or else the understanding that a time frame of several centuries would pass before the results could be attained.

It seems prudent to set a course of action and expectations before deciding which type of fee or program should be applied. Staff feels it would be unfair to require property owners to pay in-lieu fees for use in future undergrounding work which would not occur for hundreds of years, if ever. The following actions can be considered before deciding which method of raising capital is appropriate.

Rule 20: Make aggressive use of existing and future Rule 20 funds. These improvements would have a tremendous positive impact to those who live and work in the City.

Prioritization: The second course of action would be to prioritize where the undergrounding efforts should be applied. There are two main locations where overhead utilities exist: in the front right-of-way and along utility easements in the rear of properties. The utility lines located in the front are the most visible to the majority of the City, while those located in the rear are mainly visible to the residents served by those lines. Approximately 15% of the overhead utility lines in the City run along the front, while 30% are overhead in the rear (the remaining 55% is undergrounded). Prioritizing where the undergrounding improvements would occur could ensure the greatest value to the majority of the City.

Source of funding: As stated earlier, the cost of undergrounding is enormous. The following table shows the estimated cost:

Estimated Total Cost of Undergrounding Utilities	Estimated Number of Neighborhoods	Cost per Neighborhood @ $200/linear ft.	Cost per Neighborhood @ $400/linear ft.
Total estimated cost per neighborhood		$3,190,000	$6,380,000
Front overhead lines	21	**$66,990,000**	**$133,980,000**
Rear overhead lines	65	**$207,350,000**	**$414,700,000**

Given this high cost, it needs to be determined how best to raise the money for the improvements. There are several options available which are discussed in the next section of the report. In general, a decision should be made regarding the source of the funds for undergrounding improvements. The City can require the funds be raised by incremental fees for new development until enough capital is available to complete an area. The City can also require property owners to record an agreement stating that when future undergrounding occurs, the property owner will pay for their contribution. Both of these options would take many centuries to raise the money necessary to underground the utilities. A different approach is to have the City front the costs which would allow the undergrounding efforts to occur sooner, and have the property owners pay the City back through property assessments or loans.

EXAMPLE OF COST FOR TYPICAL NEIGHBORHOOD

Staff prepared a rough estimate of the costs associated with undergrounding overhead utilities located in the front yards of a typical residential area. The block area includes properties fronting on Sunset, Washington, McKinley, Charles and Evelyn Avenues, of which all have overhead lines located in the front. This neighborhood was selected because it has the overhead lines in front and is an established neighborhood which will be unlikely to experience large-scale redevelopment that would trigger undergrounding.

Studies have shown a range of costs for undergrounding utilities from $200-$400 per linear foot. By way of example, a $300 per linear foot cost was used to estimate the costs. The result is that the total cost (with the required service drops included in the costs) would be approximately $24,000 per property or $6,550,000 for the entire ten block area.

The following data shows the cost for the subject area:

Street	Linear feet	Cost @ $300/ft	# of Properties	Cost/Parcel @ $300/ft	Cost @ $300/ft w/service drops
Sunset	1650	$495,000	32	$15,469	$20,469
Pastoria	1650	$495,000	40	$12,375	$17,375
Waverly	1650	$495,000	52	$9,519	$14,519
Florence	1650	$495,000	55	$9,000	$14,000
Charles	1650	$495,000	27	$18,333	$23,333
Evelyn	2200	$660,000	10	$66,000	$71,000
Muender	1100	$330,000	31	$10,645	$15,645
Coolidge	1100	$330,000	45	$7,333	$12,333
Lewis	1100	$330,000	36	$9,167	$14,167
Washington	2200	$660,000	22	$30,000	$35,000
	Total	**$4,785,000**	**350**	$13,671	**$23,784**

The following discussion evaluates a series of options intended to enhance existing requirements related to the undergrounding of overhead utilities. The overall effectiveness and cost associated with each option will vary considerably. The depth of analysis provided in this report is intended only to aid discussion and the selection of the preferred alternative(s). A detailed assessment of each alternative will be provided through a higher level of review if selected for further consideration.

OPTIONS

There are several options available to address the underground utility issue. These options vary in effectiveness and cost; they also vary by the type and location of the utilities. This report focuses on three options including: 1. establish priorities and determine the community interest in having utilities placed underground; 2. modify the existing code to allow for simple solutions to the issue,; and, 3. develop a more aggressive approach to placing the utilities underground. For each option staff has provided a “guesstimate” of the time frames and user cost.

OPTION 1: DETERMINE RELATIVE IMPORTANCE

This option does not directly implement measures to create more undergrounding opportunities, but it sets the stage for determining the desired approach.

a. Establish Priorities: There are several types of overhead utility lines throughout the City. It is possible to rank the importance of placing these utilities underground based on the benefit to the community. Overhead utilities are most noticeable to the general public when placed in the front of properties. Overhead utilities placed in the back of properties are visible mainly from the individual properties in which the poles and lines are located. Based on these observations, Council might wish to establish priorities based on the following categories:

1. Overhead along arterials
2. Residential and commercial, overhead in front
3. Industrial, overhead in front
4. Residential and commercial, overhead in back
5. Industrial, overhead in back.

b. Conduct City-wide survey: The Council may be interested in the use of a representative survey of the community to determine the level of interest in the benefits and costs of placing utilities underground. A community survey would cost between $15,000 and $20,000, depending on the size and complexity of the survey. The survey could gain insight into how important placing utilities underground is to people, how much they are willing to pay to have them undergrounded and which types of undergrounding are most acceptable.

OPTION 2: PARTICIPATION AGREEMENTS AND IN-LIEU FEES

The undergrounding issue in existing neighborhoodscan be addressed by a few relatively simple amendments to Title 19 to allow either a deferral (or participation agreement) or a fee in lieu of the obligations to place utilities underground. As shown below, these are more piecemeal approaches because they do not entail a coordinated effort in a large area. The time to complete the undergrounding and estimated cost is included for each option.

a. ***Participation or Deferral Agreements***. This alternative acknowledges a practice already utilitized in the City to some extent. Where the undergrounding of utilities is required on a specific property, but determined to be impractical or infeasible at the time, a formal participation or deferral agreement may be entered into which defers the work and payment until such

time as the City directs. This type of agreement is recorded against the property. Such agreements provide that undergrounding would not be required at present; however, at such time in the future that undergrounding will occur the property subject to the agreement is obligated to participate. Details of such agreements commonly require a "fair share" level of participation and are required of the property owner at the time of undergrounding implementation. These agreements have been used selectively under the provision that the Director of Community Development may establish a schedule to accomplish the undergrounding.

The cost to the City associated with this option would mainly be in managing the program. The actual work would be paid by the property owners involved in the project and subject to the participation agreement. This approach would have little noticeable effect in the existing residential area because redevelopment and/or expansions are scattered and infrequent; the expected timing to complete all undergrounding would be, conservatively, hundreds of years.

b. *In Lieu-Fees.* Staff contacted several nearby cities in the County of Santa Clara to research the guidelines each uses for determining in-lieu fees for undergrounding utilities (Attachment B). Several cities allow applicants to pay an in-lieu fee for undergrounding utilities; the cities of Campbell and Mountain View do not provide for in-lieu fees.

The undergrounding requirements in other cities are typically for new subdivisions, although some cities require it for new development or significant alterations to the building. Each city uses different formulas to determine the fee. The calculation method varies for the cities, as does the application type that triggers the requirement. The Town of Los Gatos has undergrounded a large portion of their utilities, so the fee reimburses the Town for that work. In Cupertino the fee is based on a proportion of the cost and is deposited in a special account. Other cities base the fee on a linear foot of work. The City of Palo Alto does not use the in-lieu fee program because the utility district program provides the method for undergrounding the utilities.

The following in-lieu fee options would involve relatively minor amendments to Title 19 intended to close current gaps in the City's ability to collect an in-lieu fee in cases where completing undergrounding is not reasonably possible. As noted earlier in this report, the Code currently requires new development to underground utilities on the specific property on which the project is located. There are situations where a property's characteristics do not make the undergrounding of the utilities feasible. Often, the requirements are waived or not applicable. Instead of waiving any requirement for placing utilities underground, an in-lieu fee program would require any new development to

pay a fee in lieu of the actual undergrounding work for utilities that end or run through the subject property. The in-lieu fee can be based on the size and density of development, the linear frontage, a percentage of the estimated cost to underground the utilities or a percentage of normal undergrounding cost.

There are several ways to determine which improvements would be subject to the in-lieu fee. First of all, in-lieu fees would only apply to areas chosen for undergrounding. Because the cost of undergrounding varies from $200 to $400 a linear foot or $1,000,000-$3,000,000 per mile, it would likely take a thousand years to underground the utilities in the City with the current regulations and perhaps 800 years with an in-lieu fee approach.

Fees should be based on the linear foot of frontage for new projects or redevelopment. For the examples listed below, only properties with utilities located in the front were included. Two in-lieu fee methods considered for single-family homes are as follows:

1. **Fee required at 45% FAR for increasing home size.** In most cases, site improvements do not trigger an undergrounding requirement. This option would establish a new requirement for undergrounding or an in-lieu fee when a certain threshold is exceeded. For example, a 45% Floor Area Ratio (FAR) could serve as a threshold at which time an in-lieu fee for undergrounding would be collected; regardless of the size of the addition or remodel. The advantage of this type of program would be that it only affects the most intensive development in the City. The drawback is that the number of residential properties which meet the 45% FAR are relatively few, so the in-lieu fee program would still not draw significant funds to assist in the undergrounding of utilities in the residential areas most in need. Also, since the number of applications affected is relatively small, the fee may need to be higher in order to provide sufficient funds for the program. Staff estimates that a fee of 1% for each applicable single-family home would include approximately 10 homes, which would generate up to $50,000 per year. This program also requires a good recordkeeping program.

2. **Proportional fee calculation for increased home size.** A more incremental approach could be implemented so all new development pays into an undergrounding fund. The fee would be based on the increment of new development so successive additions to a house would require an undergrounding fee until the entire cost is paid off. This strategy compares the size of the existing FAR on a subject single-family residential lot against a threshold FAR (e.g. 45%) requiring that a proportion of the overall undergrounding fee be paid with any increase of floor area. For example, a 5,000 square foot lot with a 1,200 square foot

residence has an existing FAR of 24%. A 45% FAR on the same lot would result in a total structure area of 2,250 s.f. The residual floor area (that which could be added to the existing to reach 45% FAR) is 1050 s.f.

The in-lieu fee could be calculated as a percentage of the 1050 s.f. proposed to be added to the home; e.g. if the project proposes to add 525 s.f. (half of 1050) then 50% of the in-lieu fee would be due.

This particular strategy has the advantage to capture a portion of the undergrounding cost for a small project without burdening the project with total undergrounding expense. Staff estimates that a fee of 1% for each applicable single-family home would include approximately 50 homes, which would generate up to $100,000 per year. This strategy requires the application of a somewhat complicated formula and requires that the City maintain detailed records to ensure the eventual capture of total undergrounding costs.

OPTION 3: ADVANCED OPTIONS

There are several other options available to create a more extensive plan for undergrounding utilities. Two options are listed with the expected cost and benefit listed as well.

a. City-wide fee or tax:

The city may consider adopting a city-wide program to fund future utility undergrounding. Although this alternative may have the most appeal because it would generate funds more quickly, it will require careful legal analysis because of the constraints imposed by Proposition 218 and the Mitigation Fee Act (Gov. Code §66000 et. Seq.). It may be possible to craft a city-wide fee for all work that requires a building permit, if it can be demonstrated that the fee is benefiting all property owners, is proportional, and only has to be paid one time. Conversely, the city could ask the voters to approve a special tax for the purpose of funding utility undergrounding.

The advantages of this option are that an across-the-board fee would accrue greater fee amounts which would be necessary to effectively impact the underground utility situation. Also, the amount of the fee per user would be relatively small when calculated on a per improvement basis, but the return could be significant. Types of fees or taxes can include a construction fee (or tax), bonds, utility tax, etc.

The downside of this type of program would be that some new improvements may require a fee even though the subject property already has undergrounded

utilities. Also, it raises the question whether a project applicant will still be responsible for placing the utilities underground on the proposed project site.

Once the fee or tax is collected, the revenue would go into a fund for undergrounding utilities. Districts can then be set up prioritizing the undergrounding work. Money would be collected until sufficient funds are available to complete the work in the district slated for improvement. A rough estimate of the time and amount of the fees would be based on the fee amount and the desired timing of the underground work. As an example, a 1% fee on new construction could raise approximately $1,000,000 per year, which would result in taking approximately 2 to 4 years to have sufficient funds to underground 1 mile of utilities. At that rate, it would take at least 65 years to complete the undergrounding for utilities located in front of properties for the entire city.

A detailed legal analysis and significant community input regarding this option would be required prior to implementation. If Council is interested in further consideration of this option, staff recommends that it be cast as a continuing or new study issue.

b. Utility Assessment Districts/Benefit Assessment Districts:

To date, no utility assessment districts solely for the purpose of undergrounding utilities have been established in the City of Sunnyvale (note that an Assessment District has been established for properties located on Conway Road for the installation of water, sewer, street, and undergrounding of utilities). Establishment of assessment districts is a tool that may be considered by a local agency to lend emphasis to the community's undergrounding efforts. Such programs can take many forms but most commonly consist of a joint program with the utility companies where each agrees to participate in an undergrounding district and pay a share of the costs when it is formed. Full installation costs would be shared by the property owners affected by the district and, in some cases, by the local jurisdiction. Funding availability would be based on the type of district and its perceived benefit to the community. Alternatively, assessment districts may also be created without financial participation by the local agency; however, administrative costs are commonly assumed by the agency as part of the costs associated with the management of the district. In any case, the creation of such assessment districts requires extensive outreach, public participation and the vote of property owners to legally create the district. Based on the prior example 10 block neighborhood, each property would be assessed approximately $500 to $2,400 per year, based on a 30 year repayment schedule (not including interest and administration).

Council may wish to consider the development of assessment district program as an option for undergrounding of utilities as a future study issue. Overall, such a program would be the most effective and the most expensive. Consideration of this option should be formalized as a new Study Issue item.

UNDERGROUND UTILITY DISTRICT DETAILS

Underground Utility Districts are handled similarly in most cities. There are differences in how and when each city creates a new district. The basic concept, however, is the same in all cities, and is as follows:

1. The city decides which areas should be considered for an underground utility district. Public hearings are held and each affected property owner and utility company is notified. A vote of the affected property owners is taken.
2. If the decision is made to go forward, a specific area is designated as an underground utility district and the time frames are established for the work by the city, utilities and affected property owners.
3. Responsibility of utility companies is to furnish all conduits, conductors and associated equipment.
4. Responsibility of the city is to remove all city-owned equipment from the poles.
5. Responsibility of affected property owners is to construct that portion of the service connection between the building and the utility point of connection.
6. If a property owner does not complete the work, the city can complete it and a lien is placed on the property and collected through property taxes.

Advantages of Underground Utility Districts:

a. Effective method for cities to identify and manage those areas where the undergrounding of utilities are most in need of the improvement.
b. The cost of undergrounding utilities can be spread out over a larger area and would be paid by those benefiting from the improvement.
c. The underground work can be completed at one time, rather than piecemeal improvements.

Disadvantages of Underground Utility Districts:

a. It creates an improvement in areas where not all property owners find value in that improvement.
b. Requires each property owner in the specified district boundaries to participate whether interested or not. In some cases the homeowner is responsible for the undergrounding costs, which can vary from $10,000 to $60,000 per lot.
c. The cost for each homeowner to make their home ready for underground service currently ranges from $3,000 to $8,000.

An example of an undergrounding utility district program is in the City of Palo Alto. It began in 1965 as a program to underground the utilities in the city by using utility districts. To date thirty-seven underground districts have been completed, one is under construction and two are in the design phase. Approximately 1/3 of the utilities in the City have been undergrounded, with the majority being in commercial areas. The City has determined that it is expected to take 72 years to complete the entire city undergrounding at a cost of $173,000,000.

FISCAL IMPACT

Future implementation of any of the options discussed in this report would result in costs to the City related to the management and handling of collected fees and/or assessment district operational costs. Administration of any new program could range from $3,000 to $10,000 per year. Those options selected by Council for further consideration will be accompanied by a detailed analysis of its fiscal impact. Annual revenues would range from $0 to $1,000,000, as shown in this discussion, and would be used to fund the undergrounding work.

A community survey would cost between $15,000 and $20,000, depending on the size and complexity of the survey.

CONCLUSION

The City's requirement for undergrounding utility lines, adopted in 1967 and amended in 1970, has successfully caused utility lines to be placed underground in large residential and non-residential projects. It has not proven to be effective in small developments nor in older established neighborhoods.

The City is nearly built-out, which limits the opportunities to experience large-scale redevelopment in those areas where the utilities are overhead. At present, approximately 55% of the City is served by underground utility lines. Above-ground lines exist in front of properties in approximately 15% of the City (primarily in older residential neighborhoods), and in the rear of properties in approximately 30% of the City (primarily single-family homes). The overhead lines located in the front of properties have a more significant impact on the community than do those located in the rear. Front overhead lines are visible by all residents and travelers on the City's streets, while those placed in the rear are generally unseen by the general public, but are visible to the residents of properties upon which the lines are placed.

There is currently approximately $6,800,000 available in Rule 20 funds. This amount plus the next 5 years allotment should be sufficient to cover the cost of undergrounding the existing City arterials which qualify for the funds.

The modifications considered to the existing ordinance which have the least cost to residential property owners (approximately $5,000-$10,000 per single-family lot), but are the least effective, taking centuries to achieve noticeable results. Those which are most costly to property owners (approximately $15,000 to $70,000 per single-family lot) may achieve success in several decades.

PUBLIC CONTACT

For this Citywide Study Issue, the following public notice was provided:

Notice of Negative Declaration and Public Hearing	Staff Report	Agenda
• Published in the *Sun* newspaper • Two separate notices were mailed to 159 parties, including homeowner associations, developers, builders, Chamber of Commerce, major property owners and financial institutions throughout the City announcing the undergrounding study and public hearings.	• Posted on the City of Sunnyvale's Website • Provided at the Reference Section of the City of Sunnyvale's Public Library	• Posted on the City's official notice bulletin board • City of Sunnyvale's Website • Recorded for SunDial

Three telephone calls were received by staff on this study. The calls were seeking general information and clarification.

ALTERNATIVES

1. Pursue undergrounding improvements along major arterials using Rule 20 funds.
2. Determine relative importance of placing existing overhead utilities underground
    A. Establish priorities
        1. Overhead along arterials
        2. Residential and commercial, overhead in front
        3. Industrial, overhead in front
        4. Residential and commercial, overhead in rear
        5. Industrial, overhead in rear
    B. Conduct survey of residents and businesses

3. Modify ordinance to address small lot improvements
    A. Require Participation Agreements
    B. Require in-lieu fee
        1. Fee required at 45% FAR
        2. Proportional fee calculation
4. Determine if program should be accelerated
    A. Study Issue on Utility Assessment Districts
    B. Study Issue on development tax or fee
        1. Construction fee (or tax)
        2. Utility tax
        3. Bond issue
5. Make no change to the existing code.

RECOMMENDATION

Alternative 1, pursue improvements using Rule 20 funds;

Then pursue either:

Alternative 2a, Numbers 1-3, Alternative 3a and Alternative 4; first, establish priorities for future undergrounding improvements as follows:

1. Overhead along arterials
2. Residential and commercial, overhead in front
3. Industrial, overhead in front

Require Participation Agreements for properties which cannot underground utilities as a result of the development of the property. This will not necessarily provide undergrounding funds, but will be commit properties to participate in future undergrounding efforts.

Once priorities are established, initiate a new Study Issue to determine which aggressive approach is most acceptable:

1. Utility Assessment District
2. Construction fee (or tax)
3. Utility tax
4. Bond issue

OR

Alternative 5, make no changes and accept the status quo given the built-out residential situation of the City. This alternative would not remove the current requirements for undergrounding utilities. Undergrounding can be waived if it is found infeasible or impractical for the improvement proposed.

Staff recommends making full use of the Rule 20 funds in order to underground the utilities located along the major arterials. This would have a significant positive impact on the community.

The difficult decision relates to the existing neighborhoods not subject to Rule 20 funds. Staff recommends two options; either pursue an aggressive approach to underground utilities located in the front of properties in a reasonable period of time, or accept the current situation given the built-out nature of the City.

Staff feels it would be unfair to current property owners to pay a fee for which they would never experience the benefit. In-lieu fees and participation agreements would not require major changes to the code; may not result in significant amount of fees to individual property owners; but the in-lieu fee would have no pay-off for hundred's of years.

As a result, staff recommends, if the aggressive approach is pursued, to first prioritize those areas and situations where the undergrounding should be pursued. Staff recommends only pursuing those utilities located in the front, since they have the greatest impact on the general public of the City.

The other alternative is to recognize that the areas in which the utilities are located overhead have the least chance of being redeveloped, and that the cost of pursuing undergrounding improvements is too great for either the City or the property owners. In that case, accepting the status quo (maintaining the current code) makes the most sense.

Reviewed by:

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Reviewed by:

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Director Community Development

Attachments:

A. Survey of Cities in Santa Clara County
B. Map of Underground Utility Survey
C. Example of Costs- Sample Neighborhood
D. Original Study Issue for Undergrounding Utilities

Survey of Cities in Santa Clara County
Undergrounding of Utilities Requirements

	Governing Code/Initiating Act	In-lieu fee allowed?	How is in-lieu fee calculated and collected?	Can req'ts be waived? If so, what are criteria?
Campbell	Zoning Ordinance- Site Development Standards	Not done for utilities	N/A	Yes. The CDD Director can waive if unreasonable or impractical for reasons of cost, if other overhead utilities exist and the likelihood of other UG utilities in area
Cupertino	Zoning Ordinance- all new development. Subdivision Ordinance- new subdivisions and condo conversions	Yes, for subdivisions at PC's discretion.	Fee determined by City Engineer. It is 1/2 of normal cost of UG'ing existing utilities on residential streets. Condition of TM. Fees deposited in special UG account	Yes. If exceptional or extraordinary topography, soils conditions exist. Also if new developed area adjoins previously developed areas on three sides
Los Gatos	Municipal Code- any new development or remodel. Subdivisions- new subdivisions	If utilities have already been undergrounded by Town, applicant needs to reimburse Town of their share	Right-of-way and street improvement costs calculated in ordinance	Can be waived
Milpitas	Zoning Code- required in R3, R4, M1, Mp and MXD zones. Subdivision Code- all utilities required to be placed underground.	It has been used in the new Mid-Town Specific Plan area where there are small lots with limited street frontage	In those cases in Mid-Town, the fee has generally been $450/linear foot	In subdivision Code there are exceptions. City Council can waive if topography, soil or other conditions make UG unreasonable or impractical

	Governing Code/Initiating Act	In-lieu fee allowed?	How is in-lieu fee calculated and collected?	Can req'ts be waived? If so, what are criteria?
Mountain View	Subdivision Ordinance only	No	N/A	If City finds that the topography, soils or other conditions make UG unreasonable or impracticable
Palo Alto	UG Utility chapter to Code- all new construction. Subdivision Code- all utilities required to be placed underground.	Allowed, but not often used. Palo Alto has it's own electric utility, so their criteria may vary from those working with PG&E	Fee based on a case-by-case basis	Director of Utilities can ok overhead utilities where UG is not feasible or practicable
San Jose	Subdivision section of Code	Yes. UG fee program for new development used for conversion of overhead utility facilities.	Based on amount per linear foot of frontage- on percent basis. Paid prior to recording of Final Map or issuance of Building Permit	Yes. Can be exempt from fee if site is adjacent to an UG utility district established prior to 7/1/88, for minor projects or if found to be unreasonable or impractical due to topography or soils
Santa Clara	Subdivision section of Code	Yes, if in UG Utility District. Santa Clara has it's own electric utility, so their criteria may vary from those working with PG&E	Case-by-case	Handled on a case-by-case basis. Not in ordinance